

REMARKS

The present Amendment is in response to the Office Action having a mailing date of February 23, 2004. Claims 1-12 are pending in the present Application. Applicant has amended claims 3, 7, 9, 10, and 11. Applicant has also added claim 13. Consequently, claims 1-13 remain pending in the present Application.

Applicant has amended claims 3 and 10 to correct an error. Applicant respectfully submits that the scope of claims 3 and 10 is not narrowed. Applicant has amended claims 7 and 9 to remove the term “the steps of”. Applicant respectfully submits the scope of claims 7 and 9 is not narrowed by this amendment. Applicant has amended claim 11 to recite that the USB hub is automatically disconnected. Applicant has also added claim 13, which is analogous to claim 6. Consequently, Applicant respectfully submits that no new matter is added.

In the above-identified Office Action, the Examiner objected to claims 3 and 10 because of an error. In particular, Applicant had inadvertently switched the terms “connect” and “disconnect” in portions of claims 3 and 10. Applicant has amended claims 3 and 10 to correct this error. Accordingly, Applicant respectfully submits that the Examiner’s objection to claims 3 and 10 is moot.

In the above-identified Office Action, the Examiner rejected claims 1-3 and 7-10 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,279,060 (Luke). The Examiner also rejected claims 4, 5, 11, and 12 under 35 U.S.C. § 103 as being unpatentable over Luke in view of U.S. Patent No. 6,671,814 (Kubo). The Examiner further rejected claim 6 under 35 U.S.C. § 103 as being unpatentable over Luke in view of Applicant’s Admitted Prior Art (AAPA).

In the above-identified Office Action, the Examiner rejected claims 1-3 and 7-10 under 35 U.S.C. § 103 as being unpatentable over Luke.

Applicant respectfully disagrees with the Examiner's rejection. Claim 1 recites a system for managing power in a computer system including a host. The system includes a Universal Serial Bus (USB) hub, at least one USB connector coupled with the USB hub, and attach/removal detection logic coupled with the USB hub. The attach/removal detection logic determines whether a USB device is connected to the at least one USB connector. The attach/removal detection logic also logically decouples the USB hub from the host if the USB device is not connected to the at least one USB connector and logically couples the USB hub to the host if the USB device is connected to the at least one USB connector. Claim 7 recites an analogous method.

Using the system and method recited in claims 1 and 7, the USB hub is only logically coupled to the host when an USB device is actually connected to the USB hub. As a result, the computer system can enter a lower power state when the USB device is not connected to the USB hub even though the USB hub is connected to the host. Consequently, power management is improved.

Luke describes a particular USB bridge, which is a patch between a non-USB device and the USB bus. Luke, col. 1, lines 55-57 and col. 1, line 65-col. 2, line 9. The USB bridge is thus typically connected between the non-USB device and the USB bus and/or USB hub. See Luke, Fig. 13. Luke describes bridge logic that selectively decouples the bridge from the USB hub when the non-USB device is not connected to the USB bridge. Luke, col. 2, lines 41-52. Consequently, the problem enumerated by Luke, confusion of the host, is avoided. Luke, col. 2, lines 1-14.

Luke fails to teach or suggest selectively decoupling the USB hub from the host when a peripheral is not coupled to the USB hub. In order to avoid confusion in the host, Luke does disconnect the USB bridge from the USB bus when the non-USB peripheral is not connected.

However, as the Examiner has acknowledged, Luke does not explicitly teach that a USB hub can be logically coupled/decoupled to/from the host. Instead, Luke is focused on the function of the bridge connecting the USB bus and, therefore, any USB hub, with a non-USB peripheral. Luke is apparently unconcerned with the connection between the USB hub and the host. More specifically, Luke is not concerned with power management for the USB hub. Instead, Luke strives to ensure that the host is not confused by enumerating USB bridges when no peripheral is attached.

Consequently, Applicant respectfully submits that one of ordinary skill in the art would not be motivated to use the teachings of Luke, which are related to confusion of the host, to solve a different problem, power management of a host and USB hub. More particularly, Applicant respectfully submits that extending the teachings of Luke to power management of USB hubs involves improper hindsight. One “cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” In re Fine, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). See also In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). Consequently, Applicant respectfully submits that Luke fails to teach or suggest selectively decoupling the USB hub from the host when a peripheral is not coupled to the USB hub. Accordingly, Applicant respectfully submits that claims 1 and 7 are allowable over the cited references.

Claims 2-3 and 8-10 depend upon independent claims 1 and 7, respectively. Consequently, the arguments herein apply with full force to claims 2-3 and 8-10. Accordingly, Applicant respectfully submits that claims 2-3 and 8-10 are allowable over the cited references.

The Examiner also rejected claims 4, 5, 11, and 12 under 35 U.S.C. § 103 as being unpatentable over Luke in view of Kubo.

Applicant respectfully disagrees with the Examiner's rejection. Claims 4-5 and 11-12 depend upon independent claims 1 and 7, respectively. Consequently, the arguments herein apply with full force to claims 4-5 and 11-12. In particular, Luke fails to teach or suggest selectively decoupling the USB hub from the host when a peripheral is not coupled to the USB hub. Furthermore, claims 4-5 recite that the attach/removal detection logic disconnects the USB hub from the power supply if there is no peripheral device is attached. Claims 11-12 recite an analogous method, in which the USB hub is automatically disconnected from the power supply if there is no peripheral device is attached.

Kubo fails to remedy the defects of Luke. Applicant has found no mention in the cited portions of Kubo of using attach/removal detection logic to selectively disconnect the USB hub from the host. More specifically, Kubo describes a system in which a *user* can operate a switch to disconnect power to a USB device. Kubo, Abstract lines 7-11; col. 4, lines 25-31 and 51-57; col. 6, lines 5-11; and col. 7, lines 47-51. Thus, if the teachings of Kubo are added to those of Luke, the combination might allow the user to cut off power to the USB device. However, the combination would still fail to selectively disconnect the USB hub from the host. Moreover, the combination would also fail to automatically cut power to the USB hub. Consequently, Luke in view of Kubo fail to teach or suggest the systems and methods recited in claims 4-5 and 11-12. Accordingly, Applicant respectfully submits that claims 4-5 and 11-12 are allowable over the cited references.

The Examiner further rejected claim 6 under 35 U.S.C. § 103 as being unpatentable over Luke in view of AAPA.

Applicant respectfully disagrees with the Examiner. Claim 6 depends upon claim 1. Consequently, the arguments herein apply with full force to claim 6. In particular, Luke fails to

teach or suggest selectively decoupling the USB hub from the host when a peripheral is not coupled to the USB hub.

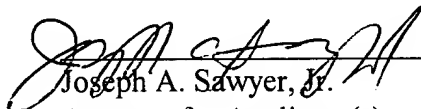
The AAPA fails to remedy the defects of Luke. Applicant agrees that the AAPA describes a conventional computer system including a USB hub that cannot enter a low power state even though no peripheral device is connected to the USB hub. However, Luke already utilizes a USB hub and couples the bridge to the USB hub. The non-USB peripheral device would then be connected to the USB bridge. Consequently, Luke already incorporates the teachings of the AAPA. Thus, a system including Luke and the AAPA would operate in a manner analogous to Luke. Thus, Luke in view of the AAPA still fails to teach or suggest the system recited in claim 6. Accordingly, Applicant respectfully submits that claim 6 is allowable over the cited references.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

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